

AMENDMENTS TO THE CLAIMS:

Claims are canceled without prejudice or disclaimer. Claims 40-86 are added. The following is the status of the claims of the above-captioned application, as amended.

Claims 1-39 (Canceled).

Claim 40 (New). An isolated polypeptide having antimicrobial activity, comprising the amino acid sequence of SEQ ID NO: 1:

Gly	Xaa	Xaa	Xaa	Arg	Xaa	Xaa	Xaa	Lys	Ile	Xaa	Xaa	Lys	Xaa	Xaa	Lys
				5				10						15	
Xaa	Xaa	Xaa	Xaa	Ile	Lys	Xaa	Xaa	Xaa	Xaa	Leu	Val	Pro	(SEQ ID NO: 1);		
				20				25							

wherein

- Xaa at position 2 is Leu or Arg;
- Xaa at position 3 is Leu, Val, Ile or Phe;
- Xaa at position 4 is Arg or Lys;
- Xaa at position 6 is Leu, Val, Ile or Phe;
- Xaa at position 7 is Arg, Lys, Trp or Gly;
- Xaa at position 8 is Lys, Arg, Gly, Met, Asn or Glu;
- Xaa at position 11 is Gly, Arg, Lys or Glu;
- Xaa at position 12 is Gly, Arg, Lys or Glu;
- Xaa at position 14 is Leu or Phe;
- Xaa at position 15 is Lys or Arg;
- Xaa at position 17 is Ile, Leu, Phe, Cys or Tyr;
- Xaa at position 18 is Gly, Ala or Thr;
- Xaa at position 19 is Gln, Arg, Leu or Pro;
- Xaa at position 20 is Lys, Ile, Met, Leu or Val;
- Xaa at position 23 is Pro, Ala, His, Asn or Asp;
- Xaa at position 24 is Ile or Leu;
- Xaa at position 25 is Arg, His, Gln or Pro; and
- Xaa at position 26 is Ile or Lys;

wherein each amino acid is independently the D or L form.

- Claim 41 (New). The polypeptide of claim 40, wherein Xaa at position 3 is Leu or Phe.
- Claim 42 (New). The polypeptide of claim 40, wherein Xaa at position 4 is Arg or Lys.
- Claim 43 (New). The polypeptide of claim 40, wherein Xaa at position 6 is Leu or Phe.
- Claim 44 (New). The polypeptide of claim 40, wherein Xaa at position 7 is Arg, Lys or Gly.
- Claim 45 (New). The polypeptide of claim 40, wherein Xaa at position 8 is Lys, Arg or Glu.
- Claim 46 (New). The polypeptide of claim 40, wherein Xaa at position 11 is Gly or Lys.
- Claim 47 (New). The polypeptide of claim 40, wherein Xaa at position 12 is Lys, Arg or Glu.
- Claim 48 (New). The polypeptide of claim 40, wherein Xaa at position 17 is Ile or Leu.
- Claim 49 (New). The polypeptide of claim 40, wherein Xaa at position 18 is Ala or Thr.
- Claim 50 (New). The polypeptide of claim 40, wherein
Xaa at position 3 is Leu or Phe;
Xaa at position 4 is Arg or Lys;
Xaa at position 6 is Leu or Phe;
Xaa at position 7 is Arg, Lys or Gly;
Xaa at position 8 is Lys, Arg or E;
Xaa at position 11 is Gly or Lys;
Xaa at position 12 is Lys, Arg or Glu;
Xaa at position 17 is Ile or Leu; and
Xaa at position 18 is Ala or Thr.
- Claim 51 (New). The polypeptide of claim 40, which consists of the amino acid sequence of SEQ ID NO: 1.
- Claim 52 (New). The polypeptide of claim 40, which comprises the amino acid sequence of SEQ ID NO: 3.

Claim 53 (New). The polypeptide of claim 40, which comprises the amino acid sequence of anyone of SEQ ID NOs: 4-8 and 10-57.

Claim 54 (New). A composition comprising a polypeptide of claim 40 and an additional biocidal agent.

Claim 55 (New). A detergent composition comprising a surfactant and a polypeptide of claim 40.

Claim 56 (New). An animal feed additive comprising

- (a) at least one polypeptide of claim 40; and
- (b) at least one fat soluble vitamin, and/or
- (c) at least one water soluble vitamin, and/or
- (d) at least one trace mineral, and/or
- (e) at least one macro mineral.

Claim 57 (New). The animal feed additive of claim 56, which further comprises phytase, xylanase, galactanase, and/or beta-glucanase.

Claim 58 (New). An animal feed composition having a crude protein content of 50 to 800 g/kg and comprising at least one polypeptide of claim 40.

Claim 59 (New). A method for killing or inhibiting growth of microbial cells comprising contacting the microbial cells with an effective amount of a polypeptide of claim 40.

Claim 60 (New). An isolated polypeptide having antimicrobial activity, comprising the amino acid sequence of SEQ ID NO: 1:

Gly Xaa Xaa Xaa Arg Xaa Xaa Xaa Lys Ile Xaa Xaa Lys Xaa Xaa Lys
5 10 15

Xaa Xaa Xaa (SEQ ID NO: 1);

wherein

- Xaa at position 2 is Leu or Arg;
- Xaa at position 3 is Leu, Val, Ile or Phe;
- Xaa at position 4 is Arg or Lys;
- Xaa at position 6 is Leu, Val, Ile or Phe;
- Xaa at position 7 is Arg, Lys, Trp or Gly;
- Xaa at position 8 is Lys, Arg, Gly, Met, Asn or Glu;
- Xaa at position 11 is Gly, Arg, Lys or Glu;
- Xaa at position 12 is Gly, Arg, Lys or Glu;
- Xaa at position 14 is Leu or Phe;
- Xaa at position 15 is Lys or Arg;
- Xaa at position 17 is Ile, Leu, Phe, Cys or Tyr;
- Xaa at position 18 is Gly, Ala or Thr; and
- Xaa at position 19 is Gln, Arg, Leu or Pro;

wherein each amino acid is independently the D or L form.

Claim 61 (New). The polypeptide of claim 60, wherein Xaa at position 19 is Arg.

Claim 62 (New). The polypeptide of claim 61, wherein Xaa at position 3 is Leu or Phe.

Claim 63 (New). The polypeptide of claim 61, wherein Xaa at position 4 is Arg or Lys.

Claim 64 (New). The polypeptide of claim 61, wherein Xaa at position 6 is Leu or Phe.

Claim 65 (New). The polypeptide of claim 61, wherein Xaa at position 7 is Arg, Lys or Gly.

Claim 66 (New). The polypeptide of claim 61, wherein Xaa at position 8 is Lys, Arg or Glu.

Claim 67 (New). The polypeptide of claim 61, wherein Xaa at position 11 is Gly or Lys.

Claim 68 (New). The polypeptide of claim 61, wherein Xaa at position 12 is Lys, Arg or Glu.

Claim 69 (New). The polypeptide of claim 61, wherein Xaa at position 17 is Ile or Leu.

Claim 70 (New). The polypeptide of claim 61, wherein Xaa at position 18 is Ala or Thr.

Claim 71 (New). The polypeptide of claim 61, wherein

Xaa at position 3 is Leu or Phe;

Xaa at position 4 is Arg or Lys;

Xaa at position 6 is Leu or Phe;

Xaa at position 7 is Arg, Lys or Gly;

Xaa at position 8 is Lys, Arg or Glu;

Xaa at position 11 is Gly or Lys;

Xaa at position 12 is Lys, Arg or Glu;

Xaa at position 17 is Ile or Leu; and

Xaa at position 18 is Ala or Thr.

Claim 72 (New). The polypeptide of claim 61, which consists of the amino acid sequence of SEQ ID NO: 1.

Claim 73 (New). The polypeptide of claim 61, which comprises the amino acid sequence of anyone of SEQ ID NOs: 59-69.

Claim 74 (New). A composition comprising a polypeptide of claim 61 and an additional biocidal agent.

Claim 75 (New). A detergent composition comprising a surfactant and a polypeptide of claim 61.

Claim 76 (New). An animal feed additive comprising

- (a) at least one polypeptide of claim 61; and
- (b) at least one fat soluble vitamin, and/or
- (c) at least one water soluble vitamin, and/or
- (d) at least one trace mineral, and/or
- (e) at least one macro mineral.

Claim 77 (New). The animal feed additive of claim 76, which further comprises phytase, xylanase, galactanase, and/or beta-glucanase.

Claim 78 (New). An animal feed composition having a crude protein content of 50 to 800 g/kg and comprising at least one polypeptide of claim 61.

Claim 79 (New). A method for killing or inhibiting growth of microbial cells comprising contacting the microbial cells with an effective amount of a polypeptide of claim 61.

Claim 80 (New). An isolated polypeptide having antimicrobial activity, comprising the amino acid sequence of SEQ ID NO: 9.

Claim 81 (New). A composition comprising a polypeptide of claim 80 and an additional biocidal agent.

Claim 82 (New). A detergent composition comprising a surfactant and a polypeptide of claim 80.

Claim 83 (New). An animal feed additive comprising

- (a) at least one polypeptide of claim 80; and
- (b) at least one fat soluble vitamin, and/or
- (c) at least one water soluble vitamin, and/or
- (d) at least one trace mineral, and/or
- (e) at least one macro mineral.

Claim 84 (New). The animal feed additive of claim 83, which further comprises phytase, xylanase, galactanase, and/or beta-glucanase.

Claim 85 (New). An animal feed composition having a crude protein content of 50 to 800 g/kg and comprising at least one polypeptide of claim 80.

Claim 86 (New). A method for killing or inhibiting growth of microbial cells comprising contacting the microbial cells with an effective amount of a polypeptide of claim 80.